

What is claimed is:

1. A system for providing programming content in response to an audio signal, where said audio signal and programming content are
5 transmitted using a network having a forward channel and a back channel, the system comprising:
 - a local processing unit for receiving a first audio signal from a first user, where said first audio signal contains a request for said programming content from a service provider, transmitting said first
10 audio signal to the service provider via the back channel; and
 - a remote server computer for receiving said first audio signal from the back channel, recognizing the first user and said request for said programming content from said received multiplexed signal, retrieving the request programming content from a program database, and
15 transmitting said programming content to said local processing unit via the forward channel.
2. The system of claim 1 further comprising:
 - a back channel multiplexer for multiplexing said transmitted first
20 audio signal from said local processing unit and a second audio signal from another audio source into a multiplexed signal, and transmitting said multiplexed signal to the back channel.
3. The system of claim 1 wherein said local processing unit identifies
25 the first user prior to transmitting said first audio signal to the service provider.
4. The system of claim 1 wherein said local processing unit comprises:
 - a sensor interface for receiving the first audio signal;
 - 30 a memory for storing software modules;
 - a processor, upon retrieving and executing said software modules from said memory, for verifying whether the first user is entitled to order programming content from the service provider; and

a network interface for transmitting said first audio signal via said back channel.

5. The system of claim 4 wherein said local processing unit further
5 comprises:

a filter for filtering background noise from said received first audio signal; and

an encoder for encoding said filtered audio signal.

- 10 6. The system of claim 4 wherein said sensor interface receives a video signal, and said processor extracts visual information of the first user contained in said received video and identifies the first user from said extracted information and said audio signal.

- 15 7. The system of claim 1 further comprising:

a program control device for capturing said first audio signal from the first user, and transmitting said captured first audio signal to said local processing unit.

- 20 8. The system of claim 7 wherein said program control device comprises a hand held control device.

9. The system of claim 7 wherein said program control device comprises at least one audio sensor.

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10. The system of claim 9 wherein said program control device further comprises a video camera.

11. The system of claim 1 wherein said remote server computer
30 matches the first user from said received first audio signal to a user profile stored in a user database, where said user profile contains audio command patterns and preferences of the first user.

12. The system of claim 1 wherein said remote server computer comprises:

an audio interface for receiving said first audio signal from said back channel;

5 a memory for storing a speech recognition module;

a processor, upon retrieving and executing said speech recognition module from said memory, for recognizing the first user and said request from said received first audio signal, and retrieving said programming content from the program database; and

10 a data interface for transmitting said retrieved programming content to said local processing unit via the forward channel.

13. The system of claim 1 wherein said programming content comprises at least one of web content, video on demand and cable
15 television programming.

14. A method for providing programming content in response to an audio signal, the method comprising:

receiving a first audio signal from a first user, where said first
20 audio signal contains a request for said programming content from a service provider;

transmitting said first audio signal to the service provider via a back channel of a television network;

recognizing the first user and said request for said programming
25 content from said transmitted audio signal;

retrieving the requested programming content from a program database; and

transmitting said retrieved programming content to the first user
via a forward channel of said television network.

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15. The method of claim 14 further comprising:

multiplexing said first audio signal with a second audio signal, where said second audio signal is transmitted from a different audio source than said first audio signal, into a multiplexed audio signal.

16. The method of claim 14 further comprising:
identifying the first user prior to and transmitting said first audio
signal.

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17. The method of claim 14 further comprising:
filtering said received first audio signal of background noise upon
receipt of said first audio signal from the first user; and
encoding said filtered first audio signal.

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18. The method of claim 14 further comprising:
verifying whether the first user is entitled to order programming
content from the service provider; and
transmitting said first audio signal to the back channel if the first
15 user is entitled to order programming content.

19. The method of claim 18 wherein said verifying comprises:
identifying the first user from a local list of valid users.

20 20. The method of claim 14 wherein said recognizing comprises:
matching the first user from the transmitted first audio signal with
a user profile containing audio command patterns and preferences of the
first user.

25 21. The method of claim 14 wherein said programming content
comprises at least one of web content, video on demand and cable
television programming.

22. The method of claim 14 further comprising:
30 receiving video of the first audio signal from the first user;
extracting visual information of the first user contained in said
received video; and
identifying the first user from said extracted visual information and
said first audio signal.

Figure 6